

Jennifer Kallay, Senior Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Inc., Cambridge, MA. *Senior Associate*, June 2013 – present, *Associate*, July 2008 – June 2013, *Research Associate*, January 2007 – July 2008.

More than a decade of experience analyzing the benefits and costs of electric and natural gas energy efficiency efforts for jurisdictions in the United States and Canada including Massachusetts, Rhode Island, Hawaii, Vermont, New Jersey, Arkansas, Minnesota, Virginia, Prince Edward's Island, Ontario, and Nova Scotia. Her work entails reviewing different regulatory approaches to spur energy efficiency; assessing the ability of utility energy efficiency plans to tap into cost-effective potential; evaluating energy efficiency components of integrated resource plans; researching best practice program designs and policies; analyzing energy efficiency as an alternative to new power plants; understanding and accounting for the full benefits of energy efficiency and conducting rate and bill impact, participant, and cost effectiveness analyses. She takes these energy efficiency analysis tools and adapts them to assess the impacts of other utility efforts, such as support for distributed energy resources.

Since 2012, she has supported the Rhode Island Division of Public Utilities and Carriers in assessing the impacts of utility energy efficiency plans and delivery strategies on customers, including low- to mid-income customers. Ms. Kallay also has five years of experience providing equitable program design solutions to achieve goals outlined in utility energy efficiency plans, community net zero energy roadmaps, and national climate policies. In 2019, she led the Net Zero Energy Roadmap for Burlington, Vermont, which included a series of tables featuring near term, mid-term, and long-term solutions prioritized using equity as a key criterion.

Boston University's Center for Energy and Environmental Studies, Boston, MA. *Research Assistant for Professor Robert Kaufmann*, January 2006 – January 2007.

Modeled land use change in the Amazon using spatial, economic, climatic, and physical variables and GIS and regression techniques.

Digitas, Inc, Boston, MA. *Manager*, November 1999 – August 2005.

Researched, designed, and executed reporting solutions to assess the effectiveness of marketing strategies based on consumer behavior. Customized analyses to gain insight into environmental influences on marketing performance and designed and built models to predict sales/revenue and inform business economics using relational databases.

PROFESSIONAL ACTIVITIES

Gas and Light Commissioner. *Elected Public Official.* 2018-present. Serves on Wakefield Massachusetts' Municipal Gas and Light Department Board of Commissioners.

EDUCATION

Boston University, Boston, MA

Master of Arts in Energy and Environmental Analysis, Spring 2007. Graduate course work in multivariate statistical analysis, environmental economics, risk assessment, energy, GIS, climate change, and environmental policy.

University of Maryland, College Park, MD

Bachelor of Arts in Journalism, Spring 1999. Presidential Scholarship and Honors Program.

CONFERENCES AND MEETINGS

- *Panelist*, NASEO Annual Meeting, Beyond Savings: The Non-Energy Benefits of Energy Efficiency, 2021.
- *Panelist*, NASEO Energy Policy Outlook Conference, Electricity Committee Session, 2021.
- *Panelist*, Roosevelt Strategic Council Microgrids and DERS Summit, Regulatory Panel, 2019.
- *Presenter*, Synapse webinar discussing the many benefits from more stringent fuel economy standards and highlighting future transportation developments, 2018.
- *Participant*, Northeast Public Power Association Annual Conference, 2018.
- *Project partner*, Sandia National Laboratories Stakeholder Advisory Group to discuss a national path forward on resilience planning, 2018.
- *Presenter*, ACEEE Summer Study on EE in Buildings, 2016.
- *Presenter*, Synapse webinar on strategies to mitigate equity concerns of energy efficiency programs, 2015.
- *Discussant*, IEA Energy Efficiency Markets workshop, 2015.
- *Presenter*, ACI Chesapeake Regional Home Performance Conference, 2014.
- *Panelist/Presenter*, IEA Experts Roundtable on Energy Provider and Consumer Benefits of Energy Efficiency, 2013.
- *Moderator*, International Energy Program Evaluation Conference (IEPEC) – Benchmarking Program Administrator and State Level Energy Efficiency Efforts Panel, 2011.

SELECTED PUBLICATIONS

Kallay, J., A. Napoleon, K. Takahashi, E. Sinclair, T. Woolf. 2021. *Opportunities for Every Kansas to Address Energy Equity Within its Integrated Resource Plan and Other Planning Processes*. Synapse Energy Economics for Union of Concerned Scientists.

Kallay, J., A.S. Hopkins, C. Odom, J. Ramey, J. Stevenson, R. Broderick, R. Jeffers, B. Garcia. 2021. *The Quest for Public Purpose Microgrids for Resilience: Considerations for Regulatory Approval*. Synapse Energy Economics for Sandia National Labs.

Kallay, J., A. Napoleon, J. Hall, B. Havumaki, A. Hopkins, M. Whited, T. Woolf, J. Stevenson, R. Broderick, R. Jeffers, B. Garcia. 2021. *Regulatory Mechanisms to Enable Investments in Electric Utility Resilience*. Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., S. Letendre, T. Woolf, B. Havumaki, S. Kwok, A. Hopkins, R. Broderick, R. Jeffers, K. Jones, M. DeMenno. 2021. *Application of a Standard Approach to Benefit-Cost Analysis for Electric Grid Resilience Investments*. Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., A. Napoleon, B. Havumaki, J. Hall, C. Odom, A. Hopkins, M. Whited, T. Woolf, M. Chang, R. Broderick, R. Jeffers, B. Garcia. 2021. *Performance Metrics to Evaluate Utility Resilience Investments*. Synapse Energy Economics for Sandia National Laboratories.

Kallay, M., Hopkins, A. Napoleon, B. Havumaki, J. Hall, M. Whitehead, M. Chang. 2021. *The Resilience Planning Landscape for Communities and Electric Utilities*. Synapse Energy Economics for Sandia National Laboratories.

Napoleon, A., J. Hall, J. Kallay, M. Chang, P. Eash-Gates, N. L. Seidman, C. James, D. Torre, D. Brutkoski, J. Migden-Ostrander, K. Colburn, K. Maddux, D. Harlow, M. Power. 2020. *Energy Infrastructure: Sources of Inequities and Policy Solutions for Improving Community Health and Wellbeing*. Synapse Energy Economics, Regulatory Assistance Project, and Community Action Partnership for the Robert Wood Johnson Foundation.

Napoleon, A., J. Kallay, K. Takahashi. 2020. *Utility Energy Efficiency and Building Electrification Portfolios Through 2025: A Brief on the New York Public Service Commission's Recent Order*. Synapse Energy Economics for the Natural Resources Defense Council.

Kallay, J., A. Hopkins, J. Frost, A. Napoleon, K. Takahashi, J. Slason, G. Freeman, D. Grover, B. Swanson. 2019. *Net Zero Energy Roadmap for the City of Burlington, Vermont*. Synapse Energy Economics and Resource Systems Group for Burlington Electric Department.

Napoleon, A., T. Woolf, K. Takahashi, J. Kallay, B. Havumaki. 2019. *Comments in the New York Public Service Commission Case 18-M-0084: In the Matter of a Comprehensive Energy Efficiency Initiative*. Comments related to NY Utilities report regarding energy efficiency budgets and targets, collaboration, heat pump technology, and low- and moderate-income customers and requests for approval. Prepared by Synapse Energy Economics on behalf of Natural Resources Defense Council.

Allison, A., A. Napoleon, J. Kallay. 2019. *Maine Low-Income Home Energy Burden Study*. Synapse Energy Economics for the Maine Office of the Public Advocate.

Havumaki, B., J. Kallay, K. Takahashi, T. Woolf. 2019. *All-Electric Solid Oxide Fuel Cells as an Energy Efficiency Measure*. Synapse Energy Economics for Bloom Energy.

Takahashi, K., B. Havumaki, J. Kallay, T. Woolf. 2019. *Bloom Fuel Cells: A Cost-Effectiveness Brief*. Synapse Energy Economics for Bloom Energy.

Kallay, J., A. Napoleon. 2019. Comments and Revised Comments on EfficiencyOne's Proposed Enhancements to its Rate and Bill Impact Model. Synapse Energy Economics for the Nova Scotia Utility and Review Board.

Hall, J., R. Wilson, J. Kallay. 2018. *Effects of the Draft CAFE Standard Rule on Vehicle Safety*. Synapse Energy Economics on behalf of Consumers Union.

Whited, M., J. Kallay, D. Bhandari, B. Havumaki. 2018. *Driving Transportation Electrification Forward in Pennsylvania: Considerations for Effective Transportation Electrification Ratemaking*. Synapse Energy Economics for the Natural Resources Defense Council.

Hall, J., J. Kallay, A. Napoleon, K. Takahashi, M. Whited. 2018. *Locational and Temporal Values of Energy Efficiency and other DERs to Transmission and Distribution Systems*. Synapse Energy Economics.

DOER. 2017. *Massachusetts Green Communities Program: 2016 Progress Report*.

Kallay, J., A. Napoleon, M. Chang. 2016. *Opportunities to Ramp Up Low-Income Energy Efficiency to Meet States and National Climate Policy Goals*. Synapse Energy Economics.

Napoleon, A., K. Takahashi, J. Kallay, T. Woolf. 2016. "Evaluation, Measurement, and Verification in Virginia." Synapse Energy Economics for Clean Energy Solutions Inc., Virginia Energy Efficiency Council, and Virginia Department of Mines, Minerals and Energy.

Kallay, J., K. Takahashi, A. Napoleon, T. Woolf. 2015. *Fair, Abundant, and Low-Cost: A Handbook for Using Energy Efficiency in Clean Power Plan Compliance*. Synapse Energy Economics for the Energy Foundation.

IEA. 2014. *Capturing the Multiple Benefits of Energy Efficiency*. Expert advisor on Chapter 6. Energy Delivery.

Brockway, N., J. Kallay, E. Malone. 2014. *Low-Income Assistance Strategy Review*. Synapse Energy Economics for the Ontario Energy Board.

Woolf, T., E. Malone, J. Kallay. 2014. *Rate and Bill Impacts of Vermont Energy Efficiency Programs*. Synapse Energy Economics for the Vermont Public Service Department.

Woolf T., E. Malone, J. Kallay, K. Takahashi. 2013. *Energy Efficiency Cost-Effectiveness Screening in the Northeast and Mid-Atlantic States*. Synapse Energy Economics for Northeast Energy Efficiency Partnerships, Inc. (NEEP).

Woolf T., J. Kallay, E. Malone, T. Comings, M. Schultz, J. Conyers. 2012. *Commercial & Industrial Customer Perspectives on Massachusetts Energy Efficiency Program*. Synapse Energy Economics for Massachusetts Energy Efficiency Advisory Council.

Hurley D., K. Takahashi, B. Biewald, J. Kallay, R. Maslowski. 2008. *Cost and Benefits of Electric Utility Energy Efficiency in Massachusetts*. Synapse Energy Economics for Northeast Energy Efficiency Council.

Swanson C., R. Hornby, J. Kallay. 2007. *Avoided Gas Supply Costs in New York*. Synapse Energy Economics for Keyspan Energy.

Hornby R., C. Swanson, M. Drunsic, D. White, P. Chernick, B. Biewald, J. Kallay. 2007. *Avoided Energy Supply Costs in New England: 2007 Report*. Synapse Energy Economics for Avoided-Energy-Supply-Component (AESC) Study Group.

Takahashi K., B. Biewald, L. Johnson, J. Kallay. 2007. *Greenhouse Gas Reduction Strategies of Electric and Gas Companies in North America*. Synapse Energy Economics for Tokyo Gas.

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